## VICTREX AM™ 200 LMPAEK™



## **Product Description:**

High performance thermoplastic material, Polyaryletherketone (PAEK), semi crystalline, filament for Additive Manufacture by filament fusion and other melt extrusion 3D printing processes. Colour natural/beige.

## **Typical Application Areas:**

Additive manufacturing processing. Filament Fusion printed parts, to achieve improved printed part strength and printability compared to PEEK polymer on most machines. For use in higher temperature applications and chemically aggressive environments. Low outgassing, suitable for sterilisation. Not suitable for medical implant applications. Product supplied vacuum packed with desiccant and dry when produced. Drying before use is recommended.

Get Process Parameters at DOCS.AON3D.COM

Dimension	Test Methods	Units	Typical Values
Diameter	3 axis laser micrometer	mm	1.75
Linear Density	Victrex test method VSH-STM-01	g/10000 m	31,000

Packaging		
Spool Dimensions	200mm diameter	
	70mm width	
	55mm centre bore	
Spool Material	Heat-resistant Polycarbonate	
Nominal Weights	1kg, 0.5 kg respectively	
Nominal Lengths	322m, 161m respectively	

Example Material Properties				Orientation	
	CONDITIONS	TEST METHOD	UNITS	XY	ZX
Tensile Strength	Yield,23°C	ISO 527	MPa	95.36	47.9
Tensile Modulus	23°C	ISO 527	GPa	3.29	2.95
Tensile Elongation	Break, 23°C	ISO 527	%	16.06	1.83

Thermal Data					
Melting Point	DSC	ISO 11357	°C	303	
Glass Transition (Tg)	DSC (Onset)	ISO 11357	°C	151	
	DSC (Midpoint)	ISO 11357	°C	154	
Crystallisation Point	DSC	ISO 11357	°C	249	
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Flow				
Melt Viscosity	400°C,1000s-1	ISO 11443	Pa.s	245

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#### Notes

Best results may be expected from elevated build-space temperatures and are machine specific. This datasheet represents properties that may be expected from build-space temperatures between 50–120°C. Samples have been successfully produced on <120°C build-space temperatures, however higher performance may be expected from machines with >120°C build space temperatures. Results vary widely from machine to machine.

Annealing may be required to generate semi-crystalline parts, depending on the machine and process conditions used in printing. Annealing temperatures between 170-180°C are recommended. Parts may deform if higher annealing temperatures are used. Depending on the print parameters, annealing conditions may require adjustment for best results.

## Important notes

- 1. Example values only. Not product specification.
- 2. Printing condition details are available on request.
- 3. Data are generated in accordance with prevailing national, international and internal standards, and should be used for material comparison. Actual property values are highly dependent on part geometry, equipment configuration, extrusion deposition strategy and processing conditions. Properties may also differ for along flow and across flow directions and from different printers technologies and manufacturers.